

REMARKS

Claim 6 has been canceled without prejudice to continued prosecution. Claims 1, 3-5, 7-14, and 17 have been amended. New claims 23-27 have been added. New claims 23-27 recite the transitional phrase "consisting essentially of." As such, the scope of these claims includes substitutions in addition to recited positions 10, 11, 28, and 32, provided that such substitutions do not materially affect the claimed function (e.g., membrane binding affinity) of the factor VII polypeptides. Support for new claims 23-27 can be found, for example, at page 12, line 17 through page 13, line 3 of the specification. No new matter has been added. Applicant respectfully requests reconsideration and allowance of claims 1, 3-5, 7-14, 16-17, and 23-27.

Drawings

In the Office Action Summary, the Examiner objected to the drawings filed on April 29, 1999. Formal drawings were submitted on July 18, 2002.

Objections

The Examiner objected to claim 11 under 37 CFR §1.75 as being a substantial duplicate of claim 6. Applicant has canceled claim 6.

Rejection under 35 U.S.C. §112, second paragraph

The Examiner rejected claims 1, 3-14, 16 and 17 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicant has amended claims 1, 3-5, 7-14, and 17 as suggested by the Examiner. The specification indicates at page 9, lines 14-19 that the amino acid positions given throughout the specification are numbered accordingly to Factor IX and that factor VII has one less amino acid and must be adjusted accordingly. The Examiner is requested to withdraw the rejection of claims 1, 3-5, 7-14, and 16-17 under 35 U.S.C. §112, second paragraph.

Obviousness-type Double Patenting Rejections

The Examiner objected to claims 1, 3-14, 16 and 17 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4 of U.S. Patent

Applicant : Gary L. Nelsestuen
Serial No. : 09/302,239
Filed : April 29, 1999
Page : 5

Attorney's Packet No.: 09531-005001 / 97141

No. 6,017,882. Applicant will submit a terminal disclaimer upon notification of allowable subject matter.


CONCLUSION

Attached is a marked-up version of the changes being made by the current amendment.

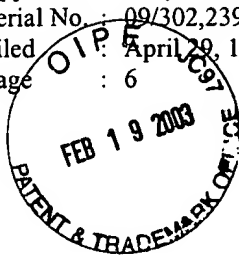
Applicant asks that claims 1, 3-5, 7-14, 16-17, and 23-27 be allowed. Enclosed is payment for the Petition for Extension of Time fee. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 2/10/03


Monica McCormick Graham, Ph.D.
Reg. No. 42,600

Fish & Richardson P.C., P.A.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (612) 288-9696



Version with markings to show changes made

In the claims:

Claim 6 has been cancelled.

Claims 1, 3-5, 7-14, and 17 have been amended as follows:

1. (Four times amended) A Factor VII or Factor VIIa polypeptide comprising a modified GLA domain that enhances membrane binding affinity and activity of said polypeptide relative to a corresponding native Factor VII or Factor VIIa polypeptide, said modified GLA domain comprising at least one amino acid substitution at residue [11 (corresponding to residue] 10 [of SEQ ID NO:3 or SEQ ID NO:4)] or [29 (corresponding to) residue 28 of SEQ ID NO:3 or SEQ ID NO:4[]].

3. (Three times amended) The polypeptide of claim 1, wherein a glutamine, a glutamic acid, an aspartic acid, or an asparagine residue is substituted at residue [11 (corresponding to residue] 10 of SEQ ID NO:3 or SEQ ID NO:4[]].

4. (Twice amended) The polypeptide of claim 3, wherein a glutamine residue is substituted at residue [11 (corresponding to residue] 10 of SEQ ID NO:3 or SEQ ID NO:4[]].

5. (Three times amended) The polypeptide of claim 1, wherein a glutamic acid or a phenylalanine residue is substituted at residue [29 (corresponding to residue] 28 of SEQ ID NO:3 or SEQ ID NO:4[]].

7. (Four times amended) The polypeptide of claim 1, wherein said modified GLA domain further comprises an amino acid substitution at residue [33 (corresponding to residue] 32 of SEQ ID NO:3 or SEQ ID NO:4[]].

8. (Twice amended) The polypeptide of claim 7, wherein a glutamic acid or an aspartic acid is substituted at residue [33 (corresponding to residue] 32 of SEQ ID NO:3 or SEQ ID NO:4[]].

9. (Twice amended) The polypeptide of claim 3, wherein said modified GLA domain further comprises a substitution of a glutamic acid or an aspartic acid at residue [33 (corresponding to residue] 32 of SEQ ID NO:3 or SEQ ID NO:4[]].

10. (Three times amended) The polypeptide of claim 5, wherein said modified GLA domain further comprises a substitution of a glutamic acid or an aspartic acid at residue [33 (corresponding to residue] 32 of SEQ ID NO:3 or SEQ ID NO:4[]].

11. (Twice amended) The polypeptide of claim 3, wherein said modified GLA domain further comprises a substitution of a glutamic acid or a phenylalanine at residue [29 (corresponding to residue] 28 of SEQ ID NO:3 or SEQ ID NO:4[]].

12. (Twice amended) The polypeptide of claim 11, wherein said modified GLA domain comprises a glutamic acid or an aspartic acid residue at amino acid [33 (corresponding to residue] 32 of SEQ ID NO:3 or SEQ ID NO:4[]].

13. (Twice amended) The polypeptide of claim 9, wherein said modified GLA domain comprises a glutamine residue at amino acid [11 (corresponding to residue] 10 [of SEQ ID NO:3 or SEQ ID NO:4)] and a glutamic acid residue at amino acid [33 (corresponding to residue] 32 of SEQ ID NO:3 or SEQ ID NO:4[]].

14. (Twice amended) The polypeptide of claim 11, wherein said modified GLA domain comprises a substitution of a glutamine at residue [11 (corresponding to residue] 10 [of SEQ ID NO:3 or SEQ ID NO:4)] and a phenylalanine at residue [29 (corresponding to residue] 28 of SEQ ID NO:3 or SEQ ID NO:4[]].

17. (Three times amended) A Factor VII or Factor VIIa polypeptide comprising a modified GLA domain that enhances membrane binding affinity of said polypeptide relative to a corresponding native Factor VII or Factor VIIa polypeptide, said modified GLA domain comprising an aspartic acid residue at amino acid [33 (residue] 32 of SEQ ID NO:3 or SEQ ID NO:4[]].